IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Kampf et al.	Examiner:	Essama Omgba
Serial No.:	10/685,770	Group Art Unit:	3726
Filed:	October 14, 2003	Docket No.:	02316.1220USD1
Customer No.:	23552	Confirmation No.:	6337
Title:	Cable Trough Method with Separate Side Elements		

APPELLANTS' BRIEF ON APPEAL

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

This brief supports the Appeal filed May 18, 2010, from the final rejection of claims 1-6 as set forth in the final Office Action mailed February 18, 2010. Please consider and enter the following remarks.

Remarks are included with this paper.

A Claims Appendix is included with this paper.

An Evidence Appendix is included with this paper.

A Related Proceeding Appendix is included with this paper.

Remarks

This brief is submitted in support of Applicants' Appeal of the final rejection of claims 1-3, 5, and 6 in the final Office Action mailed February 18, 2010. Please consider and enter the following remarks.

I. Real Party of Interest

An Assignment recorded on December 7, 2000 at reel 011353, frame 0531, lists ADC Telecommunications, Inc. as the assignee of U.S. Patent Application Serial No. 09/669,279. The present application is a divisional of the '279 application. ADC Telecommunications, Inc. is the current owner and real party of interest for this Appeal.

II. Related Appeals and Interferences

There are no related appeals or interferences.

III. Status of Claims

The status of the claims is as follows:

- claims allowed: none;
- claims objected to: none;
- claims rejected: 1-3, 5, and 6;
- claims canceled: 4; and
- claims withdrawn from consideration: none.

The claims being appealed are: claims 1-3, 5, and 6.

IV. Status of Amendments

All amendments filed during the prosecution of the present application have been entered.

V. Summary of Claimed Subject Matter

The claims of the present application are directed to methods of assembling a cable routing system. In examples described in the application, the cable routing systems include a planar base element with linear mating edges. A plurality of different side elements can be mounted to the base element along the linear mating edges to form the cable routing systems. Such side elements can include upstanding wall portions extending to a vertical height above the planar top surface of the base element, and side exits extending transversely relative to the linear mating edges and generally parallel to the planar top surface.

Such methods of assembly of cable routing systems can be advantageous for several reasons. For example, the use of a base element with linear mating edges allows for greater flexibility during installation. The base element can be cut to a desired length, and side elements can be mounted at desired locations along the linear mating edges of the base element, thereby allowing for assembly on site and reducing a need for inventorying a plurality of different types and lengths of troughs, fittings, couplers, etc. Application, page 7, lines 25-27; page 8, lines 24-30. Also, after installation, the cable routing system can be easily modified by removing one or more of the side elements and replacing the side elements with other side elements. Page 3, lines 3-5; page 7, line 27 – page 8, line 2. For example, if an exit is needed after installation, an upstanding wall portion can be removed by unsnapping it from the base element, and a side exit can be snapped into place at the desired location.

A table listing example support for each claim limitation is provided below.

Claim Limitation	Example Support in Specification
1. (Previously Presented) A method of assembling a cable routing system comprising the steps of:	P. 4, ll. 24-25; Figs. 1-22

Claim Limitation	Example Support in Specification
providing a base element with a planar top surface, first and second ends, and opposite sides, the top surface having a linear mating edge on the opposite sides of the planar top surface, each linear mating edge having a continuous cross-section along the length of each linear mating edge, and each linear mating edge defining a first mounting structure, and the planar top surface being planar along an entirety of the base element extending between the first end and the second end, including between a first of the linear mating edges to a second of the linear mating edges, and between the first mounting structure of the first linear mating edge to the first mounting structure of the second mating edge;	P. 5, l. 19 – p. 6, l. 2; Figs. 7-11
mounting a plurality of side elements to the base element along the linear mating edges by attaching second mounting structures formed on the side elements with the first mounting structure of the respective linear mating edge, the first and second mounting structures being connected to couple the side elements to the base element, a first plurality of the side elements having an upstanding wall portion extending to a vertical height above the planar top surface of the base element, a second plurality of the side elements defining side exits extending transversely relative to the linear mating edges, and generally parallel to the planar top surface; and	P. 6, l. 16 – p. 7, l. 13; Figs. 7-11

Claim Limitation	Example Support in Specification
mounting the base element at a vertical height above a telecommunications bay.	P. 6, ll. 12-15; Figs. 7-11
2. (Original) The method of claim 1, wherein one of the side elements of the second plurality of side elements includes a downspout portion to define a cable pathway extending from the planar top surface to a location below the planar top surface.	P. 7, ll. 14-24; Figs. 13 and 14
3. (Previously Presented) A method of assembling a cable routing system comprising the steps of:	P. 4, ll. 24-25; Figs. 1-22
providing a base element with a planar top surface, an opposite facing bottom surface, the base element including first and second ends, and first and second sides, the ends and the sides forming a perimeter of the base element, each of the sides having a continuous cross-section along the length of each side, the planar top surface being planar along an entirety of the base element extending to the perimeter, and each of the sides defining a first mounting structure positioned within the perimeter;	P. 5, l. 19 – p. 6, l. 2; Figs. 7-11
selecting a plurality of mating elements from a group consisting of: mating base elements, upstanding wall elements, and side exit elements including at least one horizontal side exit and at least one downspout;	P. 6, l. 16 – p. 7, l. 24; Figs. 7-14

Claim Limitation	Example Support in Specification
mounting a second mounting structure of the selected mating elements to the base element along the sides to form the cable routing system, wherein the first or second mounting structures fits within the other of the first or second mounting structures to couple the selected mating elements to the base element, and wherein the mating elements form a continuous surface along the sides of the base element; and	P. 8, ll. 3-7; Fig. 15
mounting at least one horizontal side exit and at least one downspout to the base element.	P. 6, l. 16 – p. 7, l. 24; Figs. 7-14
5. (Previously Presented) A method of assembling a cable routing system comprising the steps of:	P. 4, ll. 24-25; Figs. 1-22
providing a plurality of rectangular base elements, each base element having a planar top surface, two opposite sides, and two opposite ends, the planar top surface being planar along an entirety of the base element extending between the two opposite sides and the two opposite ends, and the base elements having a continuous cross-section in a direction parallel to the opposite sides;	P. 5, l. 19 – p. 6, l. 2; Figs. 7-11
mounting the base elements together to form a base having a planar top surface extending to outermost edges defined by one or more of the opposite sides and opposite ends of the base elements;	P. 5, ll. 24-28; Figs. 1-2

Claim Limitation	Example Support in Specification
mounting a plurality of side elements to the base along the opposite sides of the base elements by connecting a first mounting structure defined by the side of the base to a second mounting structure defined by the side elements, wherein the first or second mounting structures fits within the other of the first or second mounting structures to couple the side elements to the base, and wherein at least first and second side elements of the plurality of side elements include upstanding wall portions extending to a vertical height above the planar top surface of the base elements, and wherein a third side element of the plurality of side elements includes a side exit defining portion for exiting parallel to the planar top surface of the base.	P. 6, l. 16 – p. 7, l. 13; Figs. 7-11
6. (Original) The method of claim 5, wherein the third side element further defines a downspout portion extending from the side exit defining portion extending below the planar top surface of the base.	P. 7, ll. 14-24; Figs. 13 and 14

VI. Grounds of Rejection to be Reviewed on Appeal

Claims 1-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bernard (U.S. Patent No. 6,450,458) in view of Miranda (U.S. Patent No. 6,107,575), Mrotz III et al. (U.S. Patent No. 6,394,564), Cheng (U.S. Patent No. 5,813,738), or Lee (U.S. Patent No. 5,893,617). (Note: claim 4 was canceled in the Amendment filed November 17, 2009.)

VII. Argument

This is in response to the final Office Action mailed February 18, 2010. Claim 4 was previously canceled, and 1-3, 5, and 6 are pending. Reconsideration and allowance are requested for at least the following reasons.

A. Rejection

In the final Office Action mailed February 18, 2010, claims 1-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bernard (U.S. Patent No. 6,450,458) in view of Miranda (U.S. Patent No. 6,107,575), Mrotz III et al. (U.S. Patent No. 6,394,564), Cheng (U.S. Patent No. 5,813,738), or Lee (U.S. Patent No. 5,893,617). (Note: claim 4 was canceled in the Amendment filed November 17, 2009.) Applicants respectfully traverse the rejection. Reconsideration is requested for at least the following reasons.

B. Statutes, Laws, and Rules

To render obvious, one or more references must teach every claim limitation. 35 U.S.C. § 103(a); MPEP 2141. References cannot be combined when one reference teaches away from the suggested combination. See KSR Int'l v. Teleflex Inc., 127 S. Ct. 1727, 1740 (citing United States v. Adams, 383 U.S. 39, 50-51, 86 S. Ct. 708 (1966)); MPEP 2143.01 and 2145(X)(D)(2).

C. Analysis

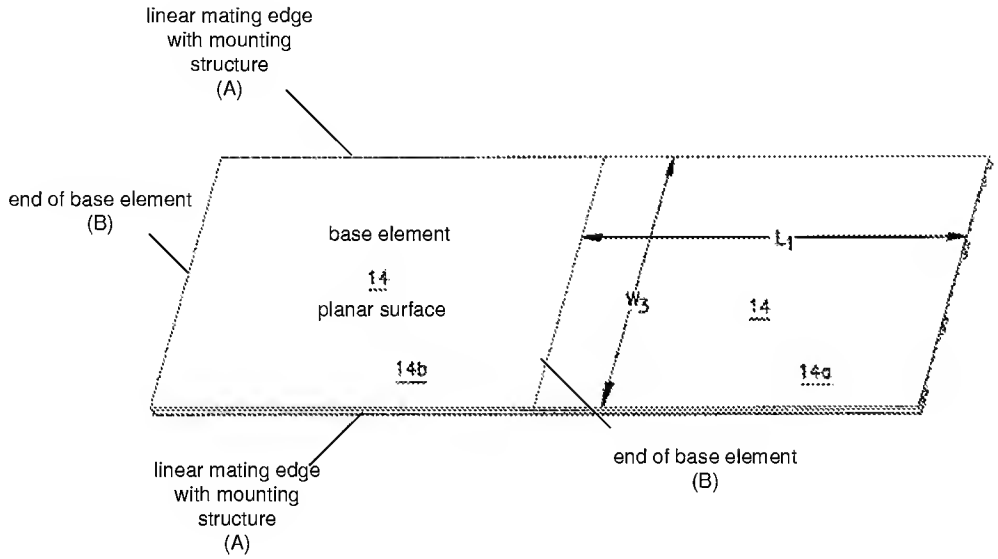
i. Claims 1 and 2

Claim 1 is directed to a method of assembling a cable routing system. Claim 1 recites, in part, that the planar top surface is planar along an entirety of the base element extending between the first end and the second end, including between a first of the linear mating edges to a second of the linear mating edges, and between the first mounting structure of the first linear mating edge to the first mounting structure of the second mating edge, and each linear mating edge having a continuous cross-section along the length of each linear mating edge.

As noted in the Summary section, such a method is advantageous for various reasons. For example, such a method of assembly provides flexibility as the cable routing system is assembled, as well as after assembly when modifications are required.

a. The Purported Combination Lacks a Base with Planar Surface and Linear Mating Edges with Continuous Cross-Section

Claim 1 states that the planar top surface extends between the first mounting structures of the linear mating edges, and that each linear mating edge has a continuous cross-section along the length of each linear mating edge. This is illustrated in Figure 2 of the application, reprinted below.



(Annotations added). As shown in Figure 2, each base element 14 includes linear mating edges "A" and ends "B" with mounting structures. Each base element 14 is planar along an entirety of the planar top surface of the base element 14 between the linear mating edges A and the ends B, including between the mounting structures.

The Action concedes that Bernard and Miranda fail to disclose the noted limitations. Instead, the Action cites the following:

- Mrotz – overhead storage unit;
- Cheng – a piece of furniture; and
- Lee – boards of a cabinet.

For at least the following reasons, none of these references discloses the note limitations.

Mrotz discloses an overhead storage unit for a modular open office system. In Figure 3, a bottom shelf 16b of Mrotz includes a self attachment area 28 at its ends and holes 70 along the sides for receiving mounting screws for hinges. Col. 3, ll. 10-17 and col. 4, ll. 31-39. The self attachment area 28 and holes 70 of the bottom shelf 16b of Mrotz clearly do not have a

continuous cross-section along their lengths. Mrotz therefore fails to disclose a top surface is planar along an entirety of the base element extending between the first end and the second end, including between a first of the linear mating edges to a second of the linear mating edges, and between the first mounting structure of the first linear mating edge to the first mounting structure of the second mating edge, and each linear mating edge having a continuous cross-section along the length of each linear mating edge, as required by claim 1.

Cheng discloses furniture that is formed from plates 10 with ribs 12. The plates 10 are secured to side panels 104 using screws 311. Col. 2, ll. 11-25. While the plates 10 are planar, the plates 10 lack any linear mating edges as recited in claim 1. Cheng therefore fails to disclose a top surface is planar along an entirety of the base element extending between the first end and the second end, including between a first of the linear mating edges to a second of the linear mating edges, and between the first mounting structure of the first linear mating edge to the first mounting structure of the second mating edge, and each linear mating edge having a continuous cross-section along the length of each linear mating edge, as required by claim 1.

Lee discloses connecting assemblies that can be used to connect boards to form a cabinet. As shown in Figures 2 and 3, each board 10 in Lee includes a clamping channel 11 that is sized to receive a T-block 30, 40, 50, 60 that is used to connect adjacent boards 10. The channels 11 therefore do not constitute mounting structures, since a separate T-block is needed to connect the boards 10. Therefore, Lee does not disclose a top surface is planar along an entirety of the base element extending between the first end and the second end, including between a first of the linear mating edges to a second of the linear mating edges, and between the first mounting structure of the first linear mating edge to the first mounting structure of the second mating edge, as required by claim 1.

b. The References Teach Away from the Purported Combination

Bernard teaches away from the purported combination with Miranda because Bernard states the following:

> The coupler 100 has an inner wall consisting of two side walls 110 and a bottom wall 120, which are preferably integral and continuous.

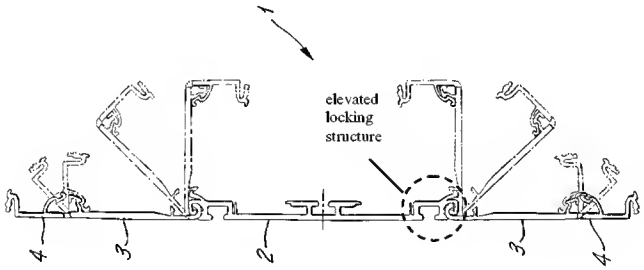
Bernard, col. 3, ll. 5-7 (underling added). Bernard therefore requires couplers and troughs with integral walls and teaches away from forming a base element and a plurality of side elements mounted thereto. Bernard cannot be combined with Miranda, Mrotz, Cheng, or Lee.

c. The References Cannot be Combined as Suggested

Miranda discloses a linear channel section with pivotable wall elements. In contrast, the elements of Figures 10 and 12 of Bernard that are identified in the Action are fittings. Such fittings are typically attached to the ends of linear sections. See, for example, Fig. 1 of U.S. Patent No. 6,739,795, which shows a linear trough 12 coupled to a fitting 18 by a coupler 14.

There is no suggestion provided as to how one would take the fittings disclosed by Bernard and incorporate the linear sections disclosed by Miranda to arrive at the claimed inventions. For example, the Action fails to identify how the fittings disclosed in Figures 10 and 12 of Bernard could be coupled to the longitudinal sides of the element 2 of Miranda. Such a combination, as suggested in the Action, could not be made.

Further, the "locking structure" of Miranda is elevated with respect to the top surface of the element 2, as shown in Figure 1 of Miranda, reprinted below (annotations added).



The Action states that it would have been obvious to modify the locking structure of Miranda according to those disclosed by Mrotz, Cheng, or Lee to arrive at the claimed inventions. However, the Action fails to suggest how one would modify the locking structures disclosed by Miranda to create a planar surface. For example, there is no suggestion regarding how the elevated Mrotz, Cheng, or Lee structure disclosed by Miranda could be modified or removed to accommodate any of the mounting structures disclosed by Mrotz, Cheng, or Lee substituted therefrom. For example, the locking structure of Miranda allows the sidewalls to be pivoted. See Figure 1, reprinted above. None of the mounting structures in the other cited art

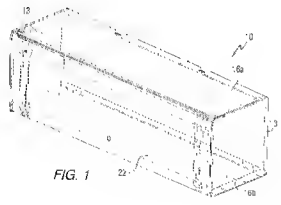
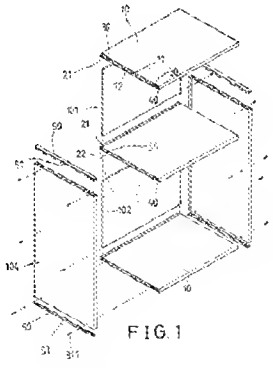
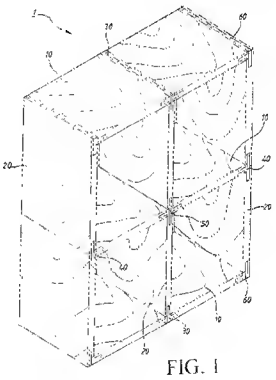
would allow such functionality. Therefore, any modification of the locking structure of Miranda would clearly involve more than a simple choice of a predictable solution.

d. There is No Suggestion to Make the Purported Combination

In addition, there is no suggestion as to how or why one skilled in the art would be motivated to modify the fittings disclosed by Bernard based on the channels disclosed by Miranda to arrive at the claimed methods. Claim 1 does not simply recite methods that include breaking a cable routing system into various elements, but instead recite specific structures for each of the elements that allow the elements to be assembled according to the steps of the claimed methods.

Neither Bernard nor Miranda, alone or in combination, discloses or suggests an assembly method for cable routing systems as recited in claim 1. Further, even if the fittings disclosed by Bernard could be broken into separate elements, there are literally thousands of different ways in which the elements could be formed. It is therefore respectfully suggested that it would not have been obvious to try because there are not simply a finite number of identified, predictable solutions.

Further, the Action fails to identify any rationale as to why one skilled in the art would be motivated to combine the overhead storage unit (Mrotz), furniture (Cheng), or cabinet (Lee) with the cable routing systems of Bernard or Miranda to arrive at the claimed inventions.

 FIG. 1	 FIG. 1	 FIG. 1
Mrotz, Fig. 1	Cheng, Fig. 1	Lee, Fig. 1

There is simply no reason one would look to combine the furniture disclosed in Mrotz, Cheng, and Lee with the cable routing structures of Bernard and Miranda.

Reconsideration and allowance of claim 1, as well as claim 2 that depends therefrom, are therefore requested.

ii. Claim 3

Claim 3 now recites the planar top surface being planar along an entirety of the base element extending to the perimeter, each of the sides defining a first mounting structure positioned within the perimeter, and each of the sides having a continuous cross-section along the length of each side. Claim 3 therefore requires that the locking structures fall within the perimeter, which has a planar top surface along its entirety. For at least reasons similar to those noted above, none of Bernard, Miranda, Mrotz, Cheng, and Lee, alone or in combination, discloses or suggests such a method.

Claim 3 also recites mounting at least one horizontal side exit and at least one downspout to the base element. The Action fails to disclose or suggest how or why one would have modified the locking structures of Miranda to accommodate a downspout. For example, because of the elevated nature of the locking structures in Miranda, any fiber optic cables exiting a trough would be required to bend upwards to move over the locking structure of Miranda, and then bend downwards to exit through the downspout. Such a configuration would result in multiple bends in the cables, which is undesirable. Further, as noted above, there is no suggest regarding how one would modify the elevated locking structures of Miranda to accommodate those disclosed by Mrotz, Cheng, and Lee.

Reconsideration and allowance of claim 3 are requested.

iii. Claims 5 and 6

Claim 5 now recites mounting the base elements together to form a base having a planar top surface extending to outermost edges defined by one or more of the opposite sides and opposite ends of the base elements, and the base elements having a continuous cross-section in a direction parallel to the opposite sides. Claim 5 is therefore allowable for at least reasons similar to those noted above.

Reconsideration of claim 5, as well as claim 6 that depends therefrom, is requested.

VIII. Summary

It is earnestly requested that the Examiner's rejection of the above-noted claims be reversed. Favorable reconsideration in the form of a Notice of Allowance is respectfully requested. Please contact the undersigned attorney with any questions regarding this application. Please charge any additional fees or credit overpayment to Merchant & Gould Deposit Account No. 13-2725.

Respectfully submitted,
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Date: August 17, 2010

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Attachment: Appendices

CLAIMS APPENDIX

1. (Previously Presented) A method of assembling a cable routing system comprising the steps of:

providing a base element with a planar top surface, first and second ends, and opposite sides, the top surface having a linear mating edge on the opposite sides of the planar top surface, each linear mating edge having a continuous cross-section along the length of each linear mating edge, and each linear mating edge defining a first mounting structure, and the planar top surface being planar along an entirety of the base element extending between the first end and the second end, including between a first of the linear mating edges to a second of the linear mating edges, and between the first mounting structure of the first linear mating edge to the first mounting structure of the second mating edge;

mounting a plurality of side elements to the base element along the linear mating edges by attaching second mounting structures formed on the side elements with the first mounting structure of the respective linear mating edge, the first and second mounting structures being connected to couple the side elements to the base element, a first plurality of the side elements having an upstanding wall portion extending to a vertical height above the planar top surface of the base element, a second plurality of the side elements defining side exits extending transversely relative to the linear mating edges, and generally parallel to the planar top surface; and

mounting the base element at a vertical height above a telecommunications bay.

2. (Original) The method of claim 1, wherein one of the side elements of the second plurality of side elements includes a downspout portion to define a cable pathway extending from the planar top surface to a location below the planar top surface.

3. (Previously Presented) A method of assembling a cable routing system comprising the steps of:

providing a base element with a planar top surface, an opposite facing bottom surface, the base element including first and second ends, and first and second sides, the ends and the sides forming a perimeter of the base element, each of the sides having a continuous cross-section

along the length of each side, the planar top surface being planar along an entirety of the base element extending to the perimeter, and each of the sides defining a first mounting structure positioned within the perimeter;

selecting a plurality of mating elements from a group consisting of: mating base elements, upstanding wall elements, and side exit elements including at least one horizontal side exit and at least one downspout;

mounting a second mounting structure of the selected mating elements to the base element along the sides to form the cable routing system, wherein the first or second mounting structures fits within the other of the first or second mounting structures to couple the selected mating elements to the base element, and wherein the mating elements form a continuous surface along the sides of the base element; and

mounting at least one horizontal side exit and at least one downspout to the base element.

4. (Canceled)

5. (Previously Presented) A method of assembling a cable routing system comprising the steps of:

providing a plurality of rectangular base elements, each base element having a planar top surface, two opposite sides, and two opposite ends, the planar top surface being planar along an entirety of the base element extending between the two opposite sides and the two opposite ends, and the base elements having a continuous cross-section in a direction parallel to the opposite sides;

mounting the base elements together to form a base having a planar top surface extending to outermost edges defined by one or more of the opposite sides and opposite ends of the base elements;

mounting a plurality of side elements to the base along the opposite sides of the base elements by connecting a first mounting structure defined by the side of the base to a second mounting structure defined by the side elements, wherein the first or second mounting structures fits within the other of the first or second mounting structures to couple the side elements to the base, and wherein at least first and second side elements of the plurality of side elements include upstanding wall portions extending to a vertical height above the planar top surface of the base

elements, and wherein a third side element of the plurality of side elements includes a side exit defining portion for exiting parallel to the planar top surface of the base.

6. (Original) The method of claim 5, wherein the third side element further defines a downspout portion extending from the side exit defining portion extending below the planar top surface of the base.

EVIDENCE APPENDIX

I. Office Actions and Amendments/Responses

1. Non-final Office Action mailed September 3, 2004
2. Response filed March 3, 2005
3. Non-final Office Action mailed May 17, 2005
4. Response filed November 17, 2005
5. Non-final Office Action mailed February 14, 2006
6. Response filed June 12, 2006
7. Non-final Office Action mailed August 24, 2006
8. Response filed February 26, 2007
9. Final Office Action mailed May 15, 2007
10. Response filed September 17, 2007
11. Non-final Office Action mailed November 28, 2007
12. Response filed May 27, 2008
13. Final Office Action mailed September 3, 2008
14. Response filed December 3, 2008
15. Advisory Office Action mailed December 18, 2008
16. Notice of Appeal filed February 18, 2009
17. Response filed June 5, 2009
18. Non-final Office Action mailed August 17, 2009
19. Response filed November 17, 2009
20. Final Office Action mailed February 18, 2010
21. Notice of Appeal filed May 18, 2010

II. References Relied Upon by the Examiner

1. Barybin et al. (SU 1272387)
2. Bernard (U.S. Patent No. 6,450,458)
3. Cheng (U.S. Patent No. 5,813,738)
4. Fox (U.S. Patent No. 7,034,227)
5. Henneberger et al. (U.S. Patent No. 5,067,678)

6. Klug (U.S. Patent No. 5,161,580)
7. Lee (U.S. Patent No. 5,893,617)
8. Merckle (U.S. Patent No. 3,351,699)
9. Miranda (U.S. Patent No. 6,107,575)
10. Mrotz III et al. (U.S. Patent No. 6,394,564)
11. Nicoli et al. (U.S. Patent No. 6,037,543)

RELATED PROCEEDINGS APPENDIX

None.